A PRACTICAL HUMAN RESOURCE MANAGEMENT PLAN FOR FOREIGN CONSTRUCTION WORKERS

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ABSTRACT : A shortage of construction field workers has been a serious problem, both in the developed and in the developing countries. As a solution for conquering this problem, these countries import foreign laborers from nearby less-developed countries. While this contributes to lessening the labor deficiency, foreign workers are relatively inefficient in productivity and are often exposed to the cross-cultural risks due to cultural differences, communication difficulties, different work ethics and customs, etc. Despite these facts, construction firms do not well address these issues and are lagged in establishing an appropriate management strategy against it. This paper presents a practical management plan for foreign construction workers through Focus Group Interviews (FGI) and survey investigation. On this basis, this study examines the level of awareness and important managerial aspects of the issue of foreign laborers. Finally, it suggests a cross-cultural and ready-to-use practical human resource management plan for facilitating the foreign worker's productivity.

Key words: Foreign Construction Workers, Practical management plan, Key failure factors

1. INTRODUCTION

In most of the developed or developing countries, the construction industry has been experiencing a serious shortage of construction field workers. To conquer this problem, numerous researches have suggested various solutions such as automation and robotics, improvement of construction labor working conditions, utilization of multi-skilled laborers, and training program for new-entry construction labor [1, 2, 3, 4]. However, these approaches are not sufficient to substitute completely for a deficient workforce. Besides, they require long-term efforts to achieve a desirable outcome, even while the shortage of construction field crews is becoming more serious.

As another solution for copying with this problem, a number of countries import foreign laborers from nearby less-developed countries in which the cost of labor is relatively lower [5, 6]. This approach, chosen in many countries, has been considered a potential solution of construction labor shortage. However, while it contributes to lessening the labor deficiency, various problems arise between those who hire foreign construction workers and the workers themselves due to cultural differences, communication difficulties, different work ethics and customs, etc [5]. These problems occur frequently when the management systems for foreign laborers are not prepared adequately. However, there have been few previous studies regarding this cross-cultural working environment so that many project managers are not well aware of the fact that there exist many conflicts among foreign laborers and managers. Lack of experience with respect to the cross-cultural project management can lead to inadequate and inefficient results in project performance.

This study presents a practical management plan for foreign construction workers on the basis of surveys performed in the Korean construction industry. The Korean contractors have hired foreign workers as trainees during the last decade, but recently, Korea Ministry of labors establishes a law to allow contractors to hire foreign labors legally [6]. This paper defines the primary problems related to foreign construction workers. These problems as a consequence of inadequate and insufficient management systems make it difficult for managers to control an overall construction project. Subsequently, the paper presents the key failure factors that stimulate and generate such problems. These key failure factors are presented differently from different positions of managers' perspectives, such as general contractor's manager, subcontractor's manager, and jobsite foreman. Finally, the paper suggests a cross-cultural and ready-to-use practical human resource management plan with a consideration of these key failure factors.

2. METHODOLOGY

The overall process of this research is shown in Fig. 1. Analyzing the shift trends of Korean foreign labor policy along with a literature review, the study also examines problems related to the foreign construction workers. In general, characteristics of public construction due to foreign workers are different from those of private one such as a portion of illegal foreign employees, quality of management system for foreign laborers, and required types of technical craft, etc. Accordingly, this research limits its area to public construction which is more affected by labor policy shifts than is the case of the private

construction. Through the literature reviews, the study attempts to identify and grasp the problems that have occurred largely due to disagreements between project managers and foreign laborers.

In addition, Focus Group Interviews (FGI) with various types of project managers are followed to reveal other potential problems which are not covered with the literature review. The problems related to foreign construction workers have their root causes which galvanize their occurrence [7]. Using the data of the literature review and FGI, every one of the potential failure factors that managers find difficult in the control of foreign laborers is drawn and categorized. All detected problems and potential failure factors are used in the survey investigations to discriminate between prior factors and subsequent results. Based on in-depth statistical analysis of survey results, the study presents the key failure factors with higher priorities. In this result, the relative differences among general contractors' managers, subcontractors' managers, and foremen are examined. After considering all factors, a practical human resource management plan is suggested.

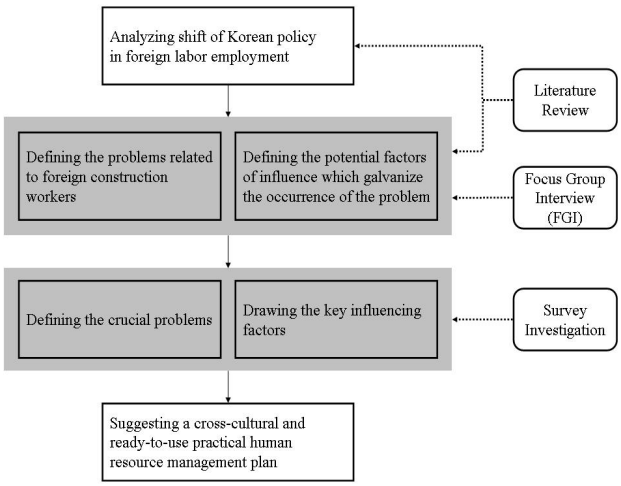

Figure 1. Process of research

3. SHIFTS IN POLICY

In general, the developed or developing countries prohibit the employment of foreign workers legally to diminish the number of illegal entrants, and to protect the domestic laborers and technology. However the construction industries' image (so-called 3D jobs), has accelerated the escape of the domestic laborers. Therefore, these countries eventually intend to allow their employers to hire foreign laborers, with some limitations.

The Korean construction industry just has changed to a policy which enables a foreign worker to be employed. Table 1 shows that the Korean government has altered the foreign labor policy many times during the last fifteen years. In the 1980s, only domestic laborers enabled to get a job in Korea, while shortages of workers in the construction industry were getting deepened. As a result, numbers of illegal foreign employees were rapidly increased. In 1993, the Korean government enforced the 'Industry Trainee System of Foreigners' to mitigate this flaw. However, it had also many limitations, such as (1) adoption of foreign workers as industry trainees - not as legal employees, (2) restricted allowable number of foreign trainees, (3) continued increase of illegal foreign employees, and (4) undeclared escapes from the training corporations (see Fig. 2).

Data Source : Ministry of Labor in Korea (2004. 07)

Figure 2. Number of illegal foreign employees

Table 1. Shift Trends in Korean foreign labor policy

Year	Policy shifts in Korea	Specifications
1991	Execution of 'Industry Technology Training of Foreign Labor ' system	- Permission to train foreigners outside of Korea within the limit of corporations advancing into the foreign market
1992	Approval for utilization of 'Foreign Industry Trainees' within the limit of corporations advancing into the foreign market	- Limitation ㆍBusiness Type: ten 3Ds(dirty, dangerous, difficult) jobs ㆍPeriod of training: Maximum 1 year ㆍScope: 10,000 persons
1993	Implementation of 'Industry Training System of Foreigners'	- Period limitation of training: 1 year (possible extension of 1 year) - Extension of business type and scope
1995	Allowance of legal protection and benefits of foreign workers	- Insurance against accidents to workers, and medical insurance, etc. - Legal protection of law
1997	Deportation of illegal entrants	
2001	Settlement and announcement of 'Amendment of Foreign Industry Trainee System'	
2002	Implementation of 'Foreigner Employment Management System'	- Limitation on the industry - Applicable to brethren with foreign nationality
2003	'Employment Permit System' provided by the law	
2004	Implementation of 'Foreign Workers Employment Permit System'	

For rectification of these flaws, the foreign labor policy was altered several times. Ultimately, the Korean government approved an 'Employment Permit System' in which the foreign worker is allowed to be employed legally in 2003. While this results in a relative mitigation of aforementioned limitations and an improvement of foreign workers' human rights, it still entails restrictions such as limited maximum employment duration, determination of payment and working conditions prior to their entrances, and prohibition of employer change.

In Korea's case, these restrictions affect the limited legal employment of foreign laborers and quality of construction performance. For instance, labors' skill improvement and their learning curves are disturbed by the limited maximum employment duration of total 3 years. After this period, foreign worker are required to return to their home countries. In addition, the relatively low payment leads to disputes between foreign laborers and domestic laborers. Thus the project manager needs to draw up a human resource management plan based on a shift in foreign labors' policy.

4. DATA COLLECTION

4.1 Focus Group Interviews (FGI)

The Focus Group Interview (FGI) is selected as the research method to search for potential factors which are not derived from the literature review. FGI is the most typical exploratory research method of qualitative research methods. The FGI, in which a disciplined chairman carries out in an impulsive atmosphere, aims to enhance the research topic of interests. For validity, these interviews were conducted twice with managers and foreign laborers. In each FGI, the members of the group were changed to get diverse opinions. The interview group consisted of 10 from the general contractor's project managers, 5 from the subcontractor's project managers, 15 from the subcontractor's foreign personnel managers and 10 foreman, as well as 5 more foreign laborers. It is found that there exist different views among these various parties. For instance, while the foreman focuses on directly ordering the foreign construction workers in a detailed work scope, the subcontractor's project managers are responsible to secure the foreign construction worker's safety, boarding, and lodging to prevent their illegal escapes from the designated construction site. Likely, each construction manager has his own particular duty.

4.2 Survey investigations

A survey investigation was conducted for suggesting a cross-cultural and ready-to-use practical human resource management plan. For designing the questionnaire, fifty-six potential failure factors which galvanize the occurrence of crucial problems related to foreign construction workers are categorized. These factors are drawn from the previous literature reviews and FGI. All potential failure factors are divided into several categories. Firstly, these categories are organized into three topics, such as characteristics of national foreign labor policy, qualification and personality of foreign labors, and on-site management system for foreign labors. Three categories have a total of twelve sub-hierarchies. Based on this structure of categorized failure factors, the questionnaires are developed to gain the key failure factors.

The questionnaire consists of four main parts: (1) Condition of foreign construction workers and degree of perception about foreign laborers' problems, (2) Frequency and impact level of those problems related to the foreign construction workers, (3) Impact level of failure factors as root causes stimulating the problems, and (4) Foreign labor management plan. In Part (1), the condition of the foreign construction worker and his perception level is measured by various forms of questions. The frequency and impact level of problems are measured using a 7-point Likert scale ('1: non-occurrence or relatively almost no-impact' to '7: excessively frequent occurrence or relatively the most impact) in Part (2). Finally, the impact level of failure factors is also measured by a 7-point Likert scale ('1: relatively almost no-impact' to '7: relatively the most impact) in Part (3). If the impact level of one failure factor is higher than others, it means that this failure factor is the most significant factor in managing foreign construction workers. Finally, each respondent is asked to describe a possible management plan freely in Part (4).

Thirteen Korean public construction projects were selected for investigation. The questionnaires are evenly distributed to the general contractor's managers, subcontractor's managers, and foremen who are experienced in managing foreign laborers in the sample projects. One hundred and sixty-five valid copies of the questionnaire are returned. Fig. 3 shows the component ratio of survey respondents. To validate the results of the survey, the structural and local component ratio of the target projects is compared to those of all in-progress projects in Korea. Fig. 4 shows that survey samples entail the similar statistical representations of the populations.

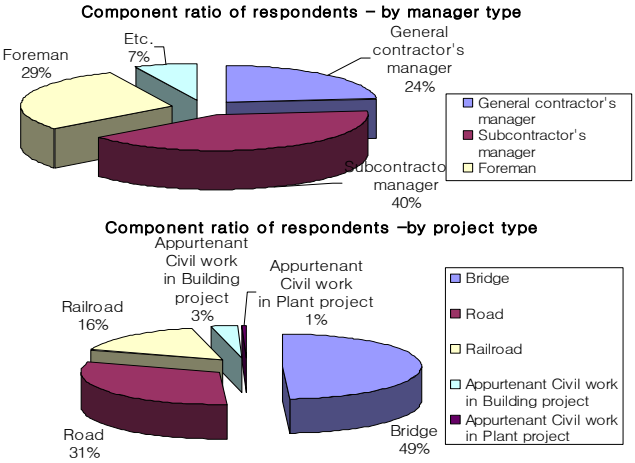

Figure 3. Component of survey respondents

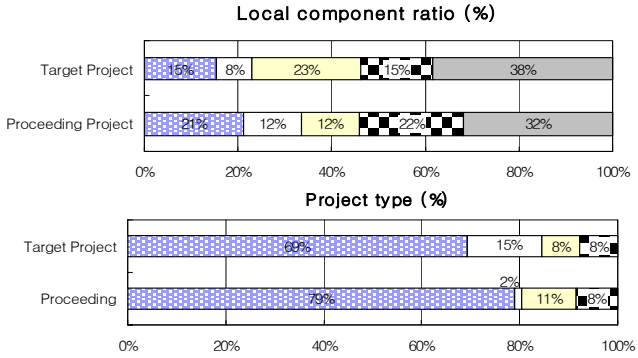

Figure 4. Comparison of portions between survey projects and population projects

5. ANALYSIS

5.1 General Conditions and Perceptions

The number of foreign construction workers employed in the sample projects is counted as 196 (31%), while that of domestic workers is 436 (69%). On the average, 15 foreign workers are engaged in each project. The types of foreign workers are similar to those of domestic workers, in that carpenters and steel benders are more popular than other occupations. On the other hand, that of typical construction laborer of the foreign workers is relatively higher (18.3%), which means that many foreign workers are less skilled and inexperienced. It is shown that the project manager puts the foreign workers into the usual jobs that is relatively easy and repetitive. As for their nationalities, Philippines and Chinese are appeared to be 61% and 36%, respectively. This fact will be further investigated in part 3.

Table 2. Manager's perceptions of foreign labor

Variables	Mean	Std. Devi.
Relative difficulty in managing foreign worker compared with domestic worker (1-7 point Likert scale)	4.36	1.00
Relative productivity of foreign worker compared with domestic worker (%)	64.18	14.85
Benefits in earning profit contributed by foreign workers (1-7-point Likert scale)	4.59	1.23

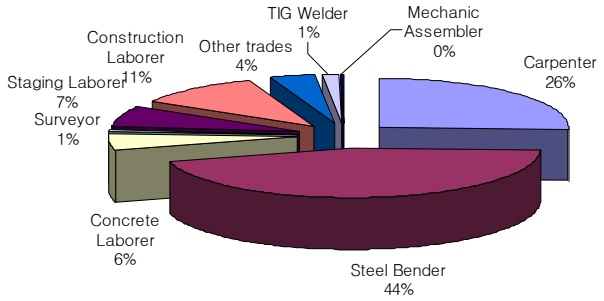

Figure 5. Percentages of shortage in Korean construction industry workforce

Most project managers accept that the productivity of a foreign worker is lower than that of a domestic worker (see Table 2). However, on the part of others, they recognize that the employment of a foreign laborer is profitable for the overall project despite of its low productivity and difficulty in putting them in the required work (see Table 2). It can be explained by the fact that the advantage of low payment to the foreign worker is enough to outweigh other deficiencies. The more foreign worker's productivity improves, the better profit expected from an appropriate management plan. Moreover, they perceived the excessive shortage of steel benders and carpenters that require experience and skillfulness (see Fig. 5). It reveals the certain gaps between demand requirement on filed sites and supply capacity of the foreign workers.

On the other hand, the Korean 'Employment Permit System' limits the foreign labor employment length to the maximum of three years. However the managers judge that the most proper duration for foreign labor employment is "3~5 years" at 53% of the total respondents (see Table 3). "From 2 years to 3 years" is the second most proper duration at 32%, and "more than 5 years" is followed at 10%. They concerned that the long-term employment might produce adverse effects such as illegal entrants and disruption of the domestic workforce. On the contrary, a duration of less than three years is too short to improve their productivity and communication skills.

Stated earlier, the project managers prefer a particular nationality of foreign laborers. In addition, it is assumed that there is a difference in a manager's management skill with respect to the nationalities and cultural characteristics of foreign labors. Actually, almost half of the respondents answered that it is required to set up a particular management plan suitable for a specific foreign laborer's nationality. They prefer those particular nationalities mainly because the personalities are diligence with good communication skills and faithfulness to their works.

Table 3. Proper foreign labor employment duration

Proper employment duration (yr.)	0-1	1-2	2-3	3-5	5-
Percentage (%)	0	5.5	32.1	52.7	9.7

5.2 Impact distance of problem

Through the analysis of questionnaire Part (2), this research defines the primary problems related to foreign construction workers. We measured impact distances of eleven problems revealed by the literature review and FGI.. The impact distance is an index that is transformed into the distance concept to reflect the frequency and impact of each problem in a concurrent manner. Moreover, we take into account a variation of respondent's perception by dividing its mean value with a standard deviation. The impact distance is calculated by the following equation:

$$D = \sqrt{(mean\_F/std\_F)^2 + (mean\_I/std\_I)^2} \quad (1)$$

Where D = Impact distance of problem; mean_F = average of problem occurrence frequencies; std_F = standard deviation of problem occurrence frequencies; mean_I = average of problem impact levels; std_I = standard deviation of problem impact levels.

The result of statistical analysis is shown in Table 4. It indicates that the most primary problem is the 'low productivity of foreign labor' of which the impact distance is measured 3.31. Besides, 'additional costs and burdens in employing foreign laborers', is followed, which points out that the foreign laborer whose payment is lower than the domestic laborer induces additional cost of board and lodging, and additional work load by awkwardness. Other primary problems include the problems related to a foreign laborer such as shortage of foreign labors' demand, and failure to adapt to the Korean culture. This result indicates that the problems related to a foreign laborer are affected altogether by the social policy system on foreign labors, qualification and personality of foreign labors, and the management system for foreign labors on the construction site. While the project managers are discontented with the

legal limitations on foreign labor employment and the quality of the foreign employee, they are not mindful of the foreign laborer's welfares, working conditions, and their inner life.

Table 4. Impact Distance of Problem

Problems related to foreign construction workers	Mean_F /std_F	Mean_I /std_I	D
Low productivity of foreign labors	2.44	2.24	3.31
Additional costs and burdens in employing foreign laborers	2.31	2.17	3.17
Shortage of foreign labors' demand	2.06	2.18	3.00
Failure to adapt to the Korean culture	1.99	2.20	2.97
Dissatisfaction and complaint due to discriminations	1.91	2.04	2.79
Disputes between foreign labors and domestic labors	1.95	1.76	2.63
Nonperformance/rejection on manager's orders or requests	1.85	1.76	2.55
Occurrence of accidents	1.75	1.85	2.55
Rejection of overtime work	1.71	1.77	2.46
Escape from the corporation or field site	1.69	1.62	2.34
No-work or strikes of foreign labor group	1.72	1.52	2.30

5.3 Critical factors influencing on foreign labor' problem

In the survey investigation, the impact level of all potential failure factors are measured to find the actual key failure factors that are causes problems related to a foreign laborer. As previously stated, these potential failure factors are categorized into three layers that constitute 12 middle classes and 56 lower-level elements. Because all possible factors expected to provoke the problems are collected in the previous research, the survey respondents are asked to check and measure the impact level only on the failure factors that have actual influences on their sites. The impact level of the potential failure factors is calculated by the following equation:

$$I = (\frac{\sum_{k=1}^{n} i_k}{m}) / std\_i \qquad (2)$$

Where I = Impact level of the potential failure factor; m = Number of total respondents; n = Number of respondents that checked the failure factor; i_k = impact level of the checked 'k'th failure factor; std_i = standard deviation of impact level.

The impact level of each failure factor is calculated by dividing the sum of the impact level with the number of total respondents. This method is used to reflect the fact that the majority of respondents checked is more important than the one which a minority of respondents checked. Subsequently, this value is divided by the standard deviation of the impact level to mirror the shape of distribution.

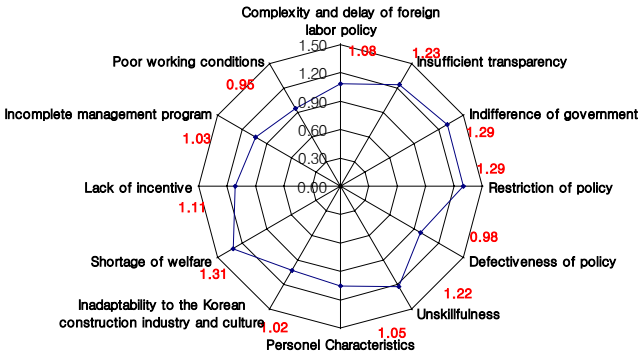

Figure 6. Impact level of 12 middle classes

The impact level of three topics, the uppermost categories in the structured category of failure factors, is calculated by the mean of the failure factors which belong to each category. It is shown that the impact of national foreign labor policy is larger than the others. It implies that the foreign labor policy designed for protecting domestic industry disturbs the effective management of foreign laborers in construction sites. Figure 6 shows the result of the impact level of the middle classes in the structured category of failure factors. 'Shortage of welfare' entails the highest impact level as 1.31. It indicates that the project manager fails to satisfy the proper working environment for the foreign laborer. The second most important categories, such as 'indifference of government', 'restriction of policy', and 'insufficient transparency,' belong to the 'social policy system'. This result points out that the government efforts to prevent illegal employment and improve human right are insufficient while there are many limitations in policy to utilize the foreign labor effectively.

Table 5 shows the top ten key failure factors among the 56 root causes that have the highest impact levels. The impact level of 'poor communication' is overwhelmingly higher than the others. Judging from this, the project manager faces the difficulty of work direction, technique spread, and opinion feedback. The next key factors are listed; 'reentry restriction of excellent labor,' and 'duration limitation of employment'. These limitations of policy interrupt the re-employment of the foreign laborers whose excellent skills are found out and the continuous utilization of the fully disciplined foreign laborer.

In addition, this paper examines the top ten key failure factors from the different perspectives of manager types, such as the general contractor's, subcontractor's, and foreman's viewpoints (see Table 6). As predicted, the key failure factors are revealed to be dissimilar. Accordingly, each manager has to control the foreign laborer differently in light of his own angle. The key failure factors of the general contractor's manager are related to the overall management of the project. It is noted that the general contractor's manager is careful about the employment duration and loyalty of foreign labors.

Unlikely, the key failure factors for the subcontractor's manager are largely dependent with the regulations of labor's policy, since it requires a subcontractor's manager to protect a foreign laborer and to offer conveniences such as board and lodging. Moreover, the restrictions of policy obstruct the probable profits if the contractor's manager utilizes the foreign labors without any limitations.

By contrast, the key failure factors on the foreman are

more related to foreign labor's qualification and personalities. It can be explained by the fact that the foreman assigns work orders to the foreign laborer directly. Often, he is dissatisfied with the relative lack of a foreign laborer's faculties, including communication skills, diligence, technique, and devotion, from various points of view. Interestingly, while the foremen are discontented with the quality of foreign laborers, perceived the 'shortage of rest time' as the second-ranked factors. It is because they well recognize the welfare conditions of foreign labors and hold a feeling of pity while working with them. Since the key failure factors are presented differently according to the type of manager, the project manager is needed to make a human resource management plan for foreign laborers with regard to the failure factors suitable to his position.

Table 5. Top 10 key failure factors

Failure factors	m	(∑i) / m	Std. Devi.	I
Poor communication	118	3.61	1.60	2.25
Reentry restriction on the skilled excellent labors	83	2.87	1.54	1.87
Restriction of employ duration in hiring foreign labors	97	3.04	1.66	1.83
Shortage of rest time	92	2.48	1.56	1.59
Complexity and delay of foreign labor entrance	66	1.90	1.21	1.57
Unskillfulness	98	2.63	1.73	1.53
Shortage of contentment and loyalty to his company	86	2.43	1.65	1.47
Shortage of construction knowledge	91	2.66	1.83	1.45
Lack of regulations and punishment to an illegal employee	85	2.43	1.73	1.40
Cultural differences	82	2.28	1.65	1.38

6. EFFECTIVE MANAGEMENT PLAN

Through the interviews and analysis of the survey investigation, a practical human resource management plan for foreign laborers for the improvement of policy and management systems is drawn as summarized in Table 7. This excludes the factors related to the personalities of foreign labors and improvement of policy because it is impractical for a project manager to implement a management plan for enhancing poor personalities and unreasonable policies. With the exception of a management plan for these categories, a practical management plan is drawn as explained in the following detail:

(1) Utilization of evaluation system: In Korea, most foreign laborers' wages are equivalent to the minimum level of domestic labors, regulated legally without the consideration of personal ability. Usually, there are no differences among the foreign laborers' wages. In this situation, the foreign laborers are not inspired by the motive to develop their ability. A fair evaluation system for the foreign laborers is suggested to stimulate them to improve the productivity.

(2) Penalty and Incentive system: Even if the foreign laborer does not follow the manager's orders, there is no compulsory regulation allowed in the law. As mentioned above, there is no difference usually in the payment considerations to the foreign laborer regardless of their skills. Due to these reasons, the foreign laborer's productivity and skills are lagged compared to those of domestic labors. Foreign laborers will be motivated if the employer gives an incentive to excellent foreign employees through the evaluation system.

(3) Employment of foreign manager and utilization of education book written in foreign language: Through the analysis of the survey investigation, the most important failure factor is revealed as 'poor communication.' The poor communication makes the project manager feel the difficulty in directing the work orders, transmitting techniques, and

Table 6. Impact level of key failure factors in manager type

Rank	General contractor's manager		Subcontractor's manager		Foreman	
	Failure factor	I	Failure factor	I	Failure factor	I
1	Restriction of employ duration in hiring foreign labors	3.14	Poor communication	2.57	Poor communication	2.24
2	Shortage of contentment and loyalty to his company	2.65	Reentry restriction on the skilled excellent labors	2.13	Shortage of rest time	1.79
3	Reentry restriction on the skilled excellent labors	2.36	Complexity and delay of foreign labor entrance	1.90	Lack of preliminary education	1.71
4	Lack of incentive as faculty	2.17	Restriction of employ duration in hiring foreign labors	1.75	Unskillfulness	1.66
5	Shortage of construction knowledge	2.12	Unskillfulness	1.63	Insufficient transparency in selection and allocation	1.52
6	Shortage of rest time	2.06	Low learning rate	1.59	Shortage of construction knowledge	1.46
7	Poor communication	2.02	Lack of regulations and punishment to an illegal employee	1.58	Delay in selecting corporation to get permission of foreign labor employment	1.45
8	Poor and dangerous working condition	2.00	Shortage of rest time	1.50	Restriction of employ duration in hiring foreign labors	1.31
9	Lack of preliminary education	1.87	Lack of periodic counsel	1.46	Lack of regulations and punishment to an illegal employee	1.31
10	Complexity and delay of foreign labor entrance	1.85	Lack of Multiple management plan suitable for nationality	1.41	Reentry restriction on the skilled excellent labors	1.30

reflecting foreign laborer's opinions. To solve this problem, a communication manual, such as a language book written in English, and a foreign manager are needed. In addition, adoption of foreign manager can lessen these problems by facilitating communication among the project participants.

(4) Operation of working team system: It is shown that the foreign worker is put into the work that is relatively easy and repetitive, because the project manager judges that a foreign labor's productivity and skill are lower than a domestic laborer's. However, it is revealed that the foreign laborer's learning rate is not low as much as expected. Accordingly, work crews combined with unskilled foreign laborers and skilled domestic laborer can improve the productivity by enhancing foreign laborers' learning curves.

(5) Guarantee of rest time and improvement of working conditions: As a result of the survey investigation, the project managers also feel that the foreign laborer's working and living conditions are at the poor level. Foreign laborers' homesickness and maladjustment in Korean culture is linked with a declined productivity. Accordingly, the project manager must be careful of not only efficiency of project management, but also the working environment surrounding a foreign laborer.

(6) Preliminary education and periodic education: In general, the education for new foreign laborers is provided only for one or two days, though they are not accustomed to the Korean construction industry and culture. During employment, they receive formal education only about safety rules. For the long run, preliminary and periodic education adds to the potential profits through prevention of avoidable accidents, improvement of techniques, and enhancement of communication skill.

(7) Considerations of different personal characteristics and management skills as nationality: As a result of the survey, many managers need a particular management plan suitable for foreign laborers' nationalities. If the manager accumulates the data of national characteristics and prepares a management plan according to nationality, he can diminish the waste by capturing the distinctive features of a foreign labor.

Table 7. Practical management plan

Improvement target	Practical management plan
Policy	· Extension of employment duration limit · Additional extension of employment duration for excellent foreign labor · Guarantee of manager's foreign labor selection
Management system	· Utilization of faculty evaluation system · Incentive as faculty · Employment of foreign manager and utilization of education book written in foreign language · Operation of working team system · Guarantee of spare time and improvement of working conditions · Preliminary education and periodic education · Summing-up of personal characteristics and management skills as nationality

7. CONCLUSION

This paper discusses a practical human resource management plan for foreign construction workers. Based on an FGI and survey investigation, the problems related to foreign labor and the top ten key failure factors for managers are defined. It is revealed that there are various problems for the effective utilization of foreign labor while the supply of foreign laborers is not enough to fulfill the demand. Above all, the policy of foreign labor affects how the project manager feels a limitation in controlling the foreign laborers fully. In addition, the key failure factors are revealed, according to each manager perspectives such as general contractor, subcontractor, and foreman. Accordingly, the project manager needs to make a human resource management plan for foreign laborers with regard to the failure factors characteristic of his position. This paper will contribute to the project manager in suggesting a practical human resource management plan under the new 'employment permit system'. Future procedural research will concentrate on evaluation of benefits through verification and adaptation of critical factors and management plans reflected in various participants' opinions.

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